

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Final Rule To Deregulate the Bahama Swallowtail Butterfly and To Reclassify the Schaus Swallowtail Butterfly From Threatened to Endangered

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service make a final determination to remove the Bahama swallowtail butterfly (*Heracles (Papilio) andraemon bonhotei*) from the U.S. List of Endangered and Threatened Wildlife, and to reclassify the Schaus swallowtail butterfly (*Heracles (Papilio) aristodemus ponceanus*) from threatened to endangered status. The action is taken under the authority of the Endangered Species Act of 1973, as amended. Both species occur in Dade and Monroe Counties, Florida, and were listed as threatened species in 1976. A recent review of the status of each of these species indicates that the Bahama swallowtail is only a sporadic resident of the United States. It is not subspecifically distinct from the non-threatened Bahaman population of this species and does not presently qualify for listing under the Endangered Species Act, as amended. The Schaus swallowtail has declined in numbers and range since the time of its listing. This action is consistent with a petition filed with the Service on March 9, 1983, by the Florida Game and Fresh Water Fish Commission, and also follows the recommendations of the approved Schaus swallowtail butterfly recovery plan. This rule removes the protection of the Endangered Species Act from the Bahama swallowtail, and affords the

Schaus swallowtail the protection of endangered status. Neither species remains eligible for a special rule at 50 CFR 17.47 that permits non-commercial take of adults, so that special rule is deleted.

EFFECTIVE DATE: The effective date of this rule is October 1, 1984.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours (7:00 a.m.-4:30 p.m.) at the Service's Endangered Species Field Station, U.S. Fish and Wildlife Service, 2747 Art Museum Drive, Jacksonville, Florida 32207.

FOR FURTHER INFORMATION CONTACT: Mr. David J. Wesley, Endangered Species Field Supervisor, at the above address (904/791-2580 or FTS 946-2580).

SUPPLEMENTARY INFORMATION:**Background**

The Bahama (*Heracles (Papilio) andraemon bonhotei*) and Schaus (*Heracles (Papilio) aristodemus ponceanus*) swallowtail butterflies are representatives of tropical species which reach their northern limits of distribution in southern Florida. The Bahama swallowtail was described by Sharpe in 1900. It has dark brown wings with a median yellow band and has two pairs of tails on the hindwings. The Schaus swallowtail was described by Schaus in 1911. Adults have blackish-brown wings with broad rusty patches under the hindwings. Only one pair of tails is present. The primary food of the larval Schaus swallowtail is torchwood (*Amyris elemifera*), while the larval Bahama swallowtail feeds on key lime (*Citrus aurantifolia*) and various *Ruta* and *Xanthoxylum* species.

The Bahama swallowtail has been recorded from Miami and Elliott Key, Dade County, and from Key Largo and

Long Key, Monroe County. Most of the records are from Elliott Key. The best available evidence indicates that this species is not a permanent resident of the U.S., nor is it subspecifically distinct from the resident *Heracles andraemon bonhotei* population in the Bahamas. This species has occasionally reproduced in the U.S., but apparently soon dies out. The most recent known breeding in the U.S. was on Elliott Key in 1972 (U.S. Fish and Wildlife Service, 1982).

The Schaus swallowtail originally occurred from the Miami area south through the Florida Keys as far as Low Matecumbe Key. The last records from Miami were in 1924. Presumably, urban development eliminated the habitat of the species there. The last records for Upper and Lower Matecumbe Keys were in the mid-1940's.

The disappearance of the species from these Keys apparently coincided with heavy collecting pressure, although collecting is not known to have caused the decline. In the early 1970's, the butterfly was relatively abundant on north Key Largo, but appears to be rare there now. The known range of the Schaus swallowtail is now Elliott and Old Rhodes Keys in Biscayne National Park, Dade County, and north Key Largo, Monroe County (Loftus and Kushlan, 1982; U.S. Fish and Wildlife Service, 1982).

Both the Bahama and Schaus swallowtail butterflies are restricted to tropical hardwood hammocks, which constitute the climax vegetation of upland areas in the Florida Keys. Formerly, this vegetation type occurred more widely in south Florida, but has been largely eliminated on the mainland. The hammocks are closely related floristically to the West Indies, and constitute the only tropical upland

plant community found in the continental U.S. The Florida Keys contain the largest remaining hammocks, but many of the areas are highly subject to development pressures because of restrictions on development in the surrounding lowland (mangrove) areas. Local, State, and Federal laws presently limit development on these wetlands. The hammocks contain a large number of plant species rare to Florida, many of which are considered threatened or endangered by this State. The tropical hardwood hammock plant community is considered to be one of the most restricted and vulnerable habitat types in the U.S.

Both butterflies were proposed for listing as federally threatened on April 22, 1975 (40 FR 17757). The proposal was made final on April 8, 1976 (41 FR 17736). The final regulation included a special rule at 50 CFR 17.47(a) exempting both species from some of the protective provisions available to threatened species under 50 CFR 17.31. Non-commercial take of adults was allowed, provided that other local, State, and Federal regulations were complied with. Chapter 39-27 of the Florida Administrative Code, however, presently lists the Bahama and Schaus swallowtail butterflies as threatened, and prohibits take, possession, sale or transport of all life stages of these species, except by permit. The Federal special rule is superseded by Florida State legislation, because the special rule allows take of adults only where the take would be in compliance with all other local, State, and Federal regulations. Section 6(f) of the Endangered Species Act allows State taking prohibitions to be more restrictive than those imposed by the Act or its implementing regulations.

Section 4(c)(2) of the Endangered Species Act, as amended, requires that a 5-year review of the List of Endangered and Threatened Wildlife be carried out to determine whether any species should be removed from the list or changed in status. A 5-year review notice for the Bahama and Schaus swallowtail butterflies was published by the Service in the February 27, 1981, *Federal Register* (46 FR 14652).

At the time the Bahama swallowtail was listed, the Endangered Species Act allowed protection for distinct population segments of all types of wildlife. The 1978 Amendments to the Act restricted protection at the population level to vertebrates. Since the U.S. populations of the Bahama swallowtail are not subspecifically distinct from the Bahaman populations, and since the subspecies *bonhotei* is not

in danger of extinction throughout all or a significant portion of its range, the Act, as amended, requires that this species be removed from the List of Endangered and Threatened Wildlife.

The Florida Game and Fresh Water Fish Commission recently carried out research on the status of the Bahama and Schaus swallowtail butterflies. The studies were funded in part with funds provided by the Service under Section 6 of the Endangered Species Act. The results of this research were incorporated into a recovery plan for the Schaus swallowtail butterfly, including recommendations for the Bahama swallowtail (U.S. Fish and Wildlife Service, 1982). The plan recommended that the Bahama swallowtail be delisted, and that the Schaus swallowtail be reclassified from threatened to endangered, based on its decline in numbers and distribution.

In a petition dated February 23, 1983, and received March 9, 1983, the Florida Game and Fresh Water Fish Commission requested that the Schaus swallowtail be reclassified as an endangered species. An administrative finding that the requested action might be warranted was made on May 9, 1983.

On August 29, 1983, the Service published in the *Federal Register* (48 FR 39096) a proposal to delist the Bahama swallowtail and to reclassify the Schaus swallowtail butterfly from threatened to endangered. Publication of this proposed rule signified that the requested action was warranted, and constituted a required finding in accordance with section 4(b)(3)(B)(ii) of the Act as amended in 1982.

Summary of Comments and Recommendations

In the August 29, 1983, proposed rule (48 FR 39096) and associated notifications, all interested parties were requested to submit factual reports or information which might contribute to the development of a final rule. Appropriate State agencies, county governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. Newspaper notices were published in the Miami, Florida, *Herald* on September 25, 1983, and in the Tavernier, Florida, *Keynoter* on September 22 and 29, 1983; general comment on the proposal was invited. Eight comments were received.

Florida's Department of Natural Resources (Division of Parks and Recreation) and Department of Agriculture and Consumer Services (DACS) supported the proposals. DACS noted, however, that *Heraclides aristodemus* specimens from Andros

Island in the Bahamas appeared to be indistinguishable from those in the Florida Keys. Bahaman populations of *Heraclides aristodemus* are presently ascribed to the subspecies *driophilus*. Another commenter, a lepidopterist, also supported the proposal. He indicated that there was evidence that the Cuban population of *Heraclides ponceanus* (presently ascribed to the subspecies *telmenes*), might also be identical to the Florida populations of *ponceanus* but that there is not presently sufficient data to substantiate this. The Service responds that, with respect to the taxonomic status of *Heraclides aristodemus*, the current scientific literature considers *Heraclides aristodemus ponceanus* to be restricted to the Keys of Monroe and Dade Counties, Florida. If at any time revisionary work were to indicate that *ponceanus* should be synonymized with one or more of the other subspecies of *Heraclides aristodemus*, the Service would review the status of the Schaus swallowtail with respect to section 4(a) of the Endangered Species Act. If the taxon were not in danger of extinction throughout all or a significant portion of its range, or likely to become endangered in the foreseeable future, it would no longer qualify for the protection of the Endangered Species Act. For example, if the butterfly were determined to be widespread and abundant in Cuba and the Bahamas, with no serious threat to its continued existence on these islands, the Florida population would not be eligible for the protection of the Act.

Support for the proposals was also received from the Florida Natural Areas Inventory, the National Park Service (Biscayne National Park), the International Union for Conservation of Nature and Natural Resources (Conservation Monitoring Centre) and two private citizens.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that the Bahama swallowtail should be removed from the U.S. List of Endangered and Threatened Wildlife, and that the Schaus swallowtail butterfly should be reclassified from threatened to endangered status. Procedures found at Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated to implement the listing provisions of the Act (codified at 50 CFR Part 424; under revision to accommodate the 1982 Amendments to the Act—see

proposal at 48 FR 36062, August 8, 1983) were followed. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to the Bahama swallowtail butterfly (*Heraclides andraemon bonhotei*) and Schaus swallowtail butterfly (*Heraclides aristodemus ponceanus*) are as follows.

A. The present or threatened destruction, modification, or curtailment of its habitat or range. The Bahama swallowtail occurs throughout the Bahama Islands. There is no information indicating any threat to the species throughout its range.

Development for residential and recreational purposes threatens to modify or eliminate tropical hardwood forest hammocks on which the Schaus swallowtail depends. Uplands in the Florida Keys, though limited in area, are of much development interest due to the many wetland (mangrove) areas that are virtually impossible to develop. The entire range of this butterfly is vulnerable to modification or destruction from hurricanes. As the range of the species becomes increasingly limited and fragmented, the likelihood of a single hurricane destroying all or most of the remaining population increases.

B. Overutilization for commercial, recreational, scientific or educational purposes. Both the Bahama and Schaus swallowtail butterflies are popular with collectors. Although a few individuals of the Bahama swallowtail may occasionally be collected when this species appears in Florida, there is no information indicating that the species is threatened by overutilization in the Bahamas.

At the time of the listing of the Schaus swallowtail as a threatened species, some correspondents believed that collection of this species represented a threat. Since the species was listed, it has decreased in range and numbers. Collecting is now probably a greater threat than at the time of listing.

C. Disease or predation. Not applicable.

D. The inadequacy of existing regulatory mechanisms. This final rule removes the Bahama swallowtail butterfly from the protection of the Endangered Species Act. Federal listing as threatened and similar state listing under Chapter 39-27.04 of the Florida Administrative Code both provide regulatory protections for the Schaus swallowtail butterfly, but its population has generally declined, even subsequent to listing. Reclassification from threatened to endangered will benefit

the Schaus swallowtail by giving increased priority to its recovery needs, pursuant to section 4(g)(4) of the Act, as amended.

E. Other natural or manmade factors affecting its continued existence. The Bahaman segment of the Bahama swallowtail populations provides it with insurance against the risk of extinction. The Schaus swallowtail could lose a significant portion of its remaining populations from hurricanes or frost. The range of this species has decreased substantially in recent decades. The present restricted range could be greatly reduced or eliminated by a single hurricane. The Schaus swallowtail is near the limits of its cold-tolerance in south Florida, and a single severe freeze could also greatly reduce the population.

Insecticide application may have adverse effects on the Schaus swallowtail. The Monroe County Mosquito Control District applies insecticides to control adult and larval mosquitoes. Both ground and aerial applications are made. The large amount of insecticides applied annually in Monroe County (4-5 thousand gallons of Dibrom and Baytex mixed with 50-60 thousand gallons of diesel fuel) could adversely affect the Schaus swallowtail as well as other insects native to the hardwood hammocks.

The Service has carefully assessed the best scientific information available regarding the past, present, and future threats faced by these species in determining to make this rule final. Based on this evaluation, the preferred action is to reclassify the Schaus swallowtail butterfly from threatened to endangered status and to remove the Bahama swallowtail butterfly from the U.S. List of Endangered and Threatened Wildlife. The Schaus swallowtail has declined since the time it was listed as threatened; the Bahama swallowtail no longer biologically or legally qualifies for the protection of the Endangered Species Act. The reason for not designating critical habitat for the Schaus swallowtail is discussed in the following section. A decision to take no action would leave both species in inappropriate status. Therefore, no action would be contrary to the Act's intent.

Critical Habitat

Section 4(a)(3) of the Endangered Species Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time any species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for the Schaus swallowtail

butterfly. Section 4(b) of the Act requires publication of critical habitat maps in the *Federal Register*. Publication of critical habitat descriptions would make this species even more vulnerable to collecting and other pressures and would increase enforcement problems. Though taking prohibitions exist, effective enforcement is difficult, particularly outside Biscayne National Park. For these reasons, the recovery plan for the Schaus swallowtail butterfly expressly recommends that no publicity be given to the remaining colonies of this species. Therefore, it would not be prudent to determine critical habitat for the Schaus swallowtail butterfly at this time.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below. These conservation measures will no longer apply to the Bahama swallowtail butterfly.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402 and are now under revision (see proposal at 48 FR 29990; June 9, 1983). Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species. If a Federal action may affect a listed species, the responsible Federal agency must enter into consultation with the Service. Since the Schaus swallowtail is already protected by section 7 of the Act by its listing as a threatened species, reclassifying the species to endangered will not affect this requirement.

The Act and its implementing regulations found at 50 CFR 17.21 set forth a series of general prohibitions and exceptions that apply to all endangered

wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take, import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that had been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered animal species under certain circumstances. Regulations governing permits are at 50 CFR 17.22 and 17.23. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in connection with otherwise lawful activities. In some instances, permits may be issued during a specified period of time to relieve undue economic hardship that would be suffered if such relief were not available.

A special rule (50 CFR 17.47(a), pursuant to section 4(d) of the Act) previously allowed non-commercial take of both the Bahama and Schaus swallowtail butterflies. These exemptions applied, however, only if concordant with State and local regulations and ordinances. Florida State law presently prohibits collecting these species except by permit, thus overriding the special rule.

This final rule removes all Federal protection for the Bahama swallowtail, and, by deleting the special rule for the Schaus swallowtail butterfly, brings existing Federal regulatory prohibitions into conformance with current State law. Few effects are anticipated from this change; the Bahama swallowtail is an occasional migrant to the U.S. and few specimens could be taken here. No additional effects are expected regarding the Schaus swallowtail, because take is already prohibited by State law except under permit.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined by the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the *Federal Register* on October 25, 1983 (48 FR 49244).

References

- Loftus, W.F., and J.A. Kushlan. 1982. The status of the Schaus swallowtail and the Bahama swallowtail butterflies in Biscayne National Park. National Park Service, South Florida Research Center, Everglades National Park. Report M-649. 18 pp.
- U.S. Fish and Wildlife Service. 1982. Schaus swallowtail butterfly recovery plan. U.S. Fish and Wildlife Service, Atlanta, Georgia. 57 pp.

Author

The primary author of this final rule is Dr. Michael M. Bentzien, U.S. Fish and Wildlife Service, 2747 Art Museum Drive, Jacksonville, Florida 32207 (904/791-2580 or FTS 946-2580). Dr. George E. Drewry of the Service's Washington Office served as editor.

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
Insects:							
Butterfly, Schaus swallowtail.	<i>Heracles (Papilio) aristodemus ponceanus</i> .	U.S.A. (FL).....	NA.....	E.....	13,159.....	NA.....	NA

3. Further amend § 17.11(h) by removing the Bahama Swallowtail butterfly (*Papilio andraemon bonhotei*), under "INSECTS," from the list of Endangered and Threatened Wildlife.

§ 17.47 [Reserved]

4. Section 17.47 is removed and reserved.

Dated: August 14, 1984.

G. Ray Arnett,
Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 84-23157 Filed 8-30-84; 8:45 am]

BILLING CODE 4310-55-M

Regulations Promulgation

PART 17—[AMENDED]

Accordingly, Part 17, Subchapter B of Chapter 1, Title 50 of the Code of Federal Regulations, is amended as set forth below:

1. The authority citation for Part 17 reads as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*).

2. Amend § 17.11(h) by changing the status of the Schaus swallowtail butterfly, under "INSECTS," from threatened to endangered; changing its scientific name, to reflect current usage, and revising the "special rules" column, as follows:

§ 17.11 Endangered and threatened wildlife.

(h) * * *